

WHAT IS CLAIMED IS:

1. A biodegradable block for models which is made of a biodegradable plastic material comprising a biodegradable polymer as the base polymer, and which is characterized in that:
 - 5 said biodegradable polymer is a mixture comprising (a) an esterified starch having a degree of substitution (DS) of about 0.4 or more and (b) an esterified cellulose having a DS of about 0.4 or more, in a ratio by weight, (a) / (b), of being from 10 / 0 to 1 / 9.
2. The biodegradable block for models as claimed in claim 1, wherein said esterified starch
 - 10 contains one or more members selected from the group as follows:
 - (1) An esterified starch prepared by esterifying a starch with an esterifying reagent of a vinyl ester in a non-aqueous organic solvent in the presence of an esterification catalyst.
 - (2) An esterified, polyester-grafted starch which is formed by esterifying starch and grafting starch with polyester.
 - 15 (3) A mixed esterified starch of which hydrogen in the reactive hydroxyl group of the same starch molecule is substituted with an acyl group that has from 2 to 4 carbon atoms (short chain acyl group) and an acyl group that has from 6 to 18 carbon atoms (long chain acyl group).
- 20 3. The biodegradable block for models as claimed in claim 1, wherein said esterified starch contains a starch ester having a DS of about 1.0 to 2.8, which is produced by a process wherein a purified starch containing at least 50% of amylose is reacted with an acylation reagent in the presence of a basic catalyst in an anhydrous aprotic solvent.
- 25 4. The biodegradable block for models as claimed in claim 1, wherein said esterified starch is one as prepared from a high-amylose starch having an amylose content of about 50 % by weight or higher.
5. The biodegradable block for models as claimed in claim 1, wherein said esterified starch
 - 30 has a DS of about 1.0 to 2.8.
6. The biodegradable block for models as claimed in claim 1, wherein said biodegradable

plastic material comprises a mixture of said biodegradable polymer and biodegradable polyester.

5 7. The biodegradable block for models as claimed in claim 1, wherein said biodegradable plastic material contains, as a side component, an ester plasticizer in an amount of about 35 % by weight or smaller, to have a glass transition temperature falling between about 65 °C (degree C) and about 120 °C.

10 8. The biodegradable block for models as claimed in claim 1, wherein said biodegradable plastic material contains an organic or inorganic filler in an amount of about 50 % by weight or smaller to have predetermined dimension stability, heat resistance and strength.

15 9. The biodegradable block for models as claimed in claim 8, wherein said organic filler is cellulosic fiber.

20 10. The biodegradable block for models as claimed in claim 9, wherein said cellulosic fiber is cellulosic microfiber having a mean length (L) of from about 20 to about 750 μ m (micro meter), a mean diameter (D) of from about 5 to about 80 μ m, and a ratio, L/D, of being nearly from 3 to 60.

25 11. A method for producing a biodegradable block for models, comprising kneading the biodegradable polymer of claims 1, optionally along with an ester plasticizer in an amount of about 35 % by weight or smaller, a filler in an amount of about 50 % by weight or smaller, and any other additives, forming it into biodegradable plastic material in the form of pellets or powder or in any other desired form, putting the resulting plastic material into a press-shaping mold, melting it under heat therein, and shaping it under compression to give the intended biodegradable block for models.

30 12. A method for producing a biodegradable model, comprising cutting or machining the biodegradable block of claims 1 with any of hand tools or machine tools.